

# Fixation of the type species and revalidation of the genus *Dendroplex* Swainson, 1827 (Dendrocolaptidae)

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Since 1951, various authors (Peters 1951, Clements 2000, Marantz *et al.* 2003, Dickinson 2003) have placed the taxa based on *Oriolus picus* J. F. Gmelin, 1788 (Straight-billed Woodcreeper), and *Dendroornis kienerii* Des Murs, 1856 (Zimmer's Woodcreeper), in the genus *Xiphorhynchus* Swainson, 1827 (Dendrocolaptidae). Earlier authorities (Sclater 1890, Hellmayr 1925, Zimmer 1934, Todd 1948) used *Dendroplex* Swainson, 1827, for these taxa. Swainson's original characterisation of *Dendroplex* (1827: 354) provided only a brief diagnosis of the new taxon ('Rostrum rectissimum. Alæ mediocres, rotundatæ; remigibus 3<sup>ti</sup>a, 4<sup>ta</sup>, et 5<sup>ta</sup> longissimis'), and no reference to a type species, as he explicitly acknowledged being unsure whether the specimen upon which he based the new genus, had already been described as a species or not. He further stressed the diagnostic bill shape of the new genus and its close affinity with other Dendrocolaptid genera, stating: 'The living bird has all the manners of a *Picus*. Except in its perfectly straight bill, it differs not from *Dendrocolaptes*'.

Ten years later, Swainson (1837: 313–314) provided essentially the same diagnosis of the original description: 'Bill moderate, very straight, perfectly conic in profile; the sides much compressed.' This time the diagnosis was accompanied by a depiction of the straight culmen and lateral compression (Fig. 1). But, at the end of the characterisation, Swainson added: 'The scansorial type *D. guttatus* Spix i, 91, f. 1', which refers to fig. 1 on pl. 91 in Spix (1824). The term scansorial here relates to Swainson's quinary concept of re-occurring types within the animal kingdom; nevertheless, the fact remains that he included a single nominal species, thereby satisfying the requirements of Art. 69.3 for designation by subsequent monotypy (ICZN 1999). In his review of the Dendrocolaptidae, Hellmayr (1925: 288) pointed out that Swainson's diagnoses of 1827 and 1837, and bill outline (Fig. 1), correspond to the characters of *Oriolus picus*, though the only species mentioned (*D. guttatus* Spix i, 91, f. 1) 'belongs to the genus *Xiphorhynchus* Swainson'. Hellmayr continued that Swainson obviously followed Lesson (1830: 313) in misidentifying Spix's plate with *Oriolus picus* which, he believed, had to be regarded as the genotype of *Dendroplex*, being the only species then known with these generic characters. Hellmayr (1925) referred readers also to Gray (1840: 17), and Lafresnaye, *Rev. Mag. Zool.* (2)2, 1850, p. 959, where they merely grouped *O. picus* J. F. Gmelin, 1788, in *Dendroplex* without providing valid genus type designations.

Following Hellmayr (1925), Peters (1951: 36) recognised that ‘*D. guttatus* Spix i, 91, f. 1’ depicts a bird now known as *Xiphorhynchus ocellatus* (Spix 1824), and stressed that under Opinion 65 (Schenk & McMasters 1948: 54) the case of misidentification had to be formally presented to the ICZN for ruling, and that until a decision was reached, *Xiphorhynchus ocellatus ocellatus* = *Dendrocolaptes ocellatus* Spix 1824 must continue as the type of *Dendroplex*.

Aleixo (2002) demonstrated, using molecular data, that the genus *Xiphorhynchus* (sensu Peters 1951) is paraphyletic, and that the sister taxa *X. picus* = *Oriolus picus* J. F. Gmelin, 1788, and *X. kienerii* = *Dendroornis kienerii* Des Murs, 1856, are the only species which do not belong to a clade with the remaining *Xiphorhynchus* species. He suggested that they might be grouped in a different genus, in which case the name *Dendroplex* Swainson, 1827, would be available if problems with its type species designation could be resolved.

The fourth edition of the *International code of zoological nomenclature* (ICZN 1999) states:

67.2.2. If a nominal genus or subgenus was established before 1931... without included nominal species..., the nominal species that were first subsequently and expressly included in it are deemed to be the only originally included nominal species.

Taken in isolation, this Article would indicate that the type of *Dendroplex* Swainson, 1827, must be ‘*D. guttatus* Spix, i, 91, f. 1’ = *Dendrocolaptes ocellatus* Spix, 1824. But the latest edition of the Code now permits a misidentified type species to be set aside without the requirement of a ruling from the Commission. Art. 67.9 states: ‘If a validly fixed type species is later found to have been misidentified, the provisions of Article 70.3 apply.’ Art. 70.3 states:

**Misidentified type species.** If an author discovers that a type species was misidentified... the author may select, and thereby fix as type species, the species that will, in his or her judgment, best serve stability and universality, either

70.3.1. the nominal species previously cited as type species [Arts. 68, 69], or  
70.3.1. the taxonomic species actually involved in the misidentification. If the latter choice is made, the author must refer to this article and cite together both the name previously cited as type species and the name of the species selected.

We advocate the conservation of *Dendroplex* Swainson, 1827, as a valid taxon. The following evidence supports Hellmayr’s (1925) interpretation that Swainson’s (1837) identification of ‘*D. guttatus* Spix, i, 91, f. 1’ as the type was a case of misidentification, and that *D. picus* = *Oriolus picus* J. F. Gmelin, 1788, was the taxon upon which Swainson actually based *Dendroplex*.



Figure 1. Bill outlines (Swainson 1837: 313, fig. 281e) accompanying Swainson's diagnosis of *Dendroplex* and reference to '*D. guttatus* Spix, i, [pl.] 91. f. 1.' as the genus type (Swainson 1837: 314). The illustration refers unambiguously to the only species in the entire family Dendrocolaptidae known to possess this particular bill shape: *Xiphorhynchus picus* = *Oriolus picus* J. F. Gmelin, 1788.

Swainson (1827: 354) was unsure whether the taxon on which he based *Dendroplex* had been described. Ten years later, when he next cited *Dendroplex* (Swainson 1837: 313–314), the original diagnosis was maintained and even illustrated in detail (see Fig. 1), but '*D. guttatus* Spix, i, [pl.] 91. f. 1.' was mentioned as belonging to the genus apparently in accordance with Lesson (1830: 313), who a few years earlier explicitly equated '*D. guttatus* Spix, pl. 91' with '*Oriolus picus* Gm.' Lesson's entry reads: '5. PICUCULE TALAPIOT; *Dendrocolaptes guttatus* Spix, pl. 91. *Oriolus picus*, Gm.; *Gracula picoides*, Shaw; Enl., 605.'

'Enl., 605' refers to 'Le Talapiot' Daubenton, 1770–83, Planches enluminées d'histoire naturelle, in Buffon, *Histoire naturelle des oiseaux*, pl. 605 (Cayenne), in turn the basis of J. F. Gmelin's *Oriolus picus*. *Gracula picoides* Shaw, 1809, *General zoology, or systematic natural history*, 7, no. 2, p. 476, was merely a new name for *Oriolus picus* J. F. Gmelin, 1788. Lesson's description of the Picucule Talapiot, including as it does 'Bec presque droit, corné', i.e. bill nearly straight, horn-coloured, probably determined Swainson's acceptance of Lesson's treatment.

There is a significant discrepancy between the levels of detail and resolution of the bill outline presented in fig. 281e of Swainson (1837: 313) as diagnostic of *Dendroplex* (see Fig. 1) and that of *D. guttatus* in Spix's plate, chosen by Swainson (1837) as the type of *Dendroplex*. Whilst the latter is poor in resolution and depicts a bird which resembles several taxa currently classified in the genus *Xiphorhynchus*, fig. 281e of Swainson (1837), in contrast, is very well resolved and refers unambiguously to the only species of Dendrocolaptidae known to this day to possess such a bill shape: *X. picus* = *Oriolus picus* J. F. Gmelin, 1788 (Marantz *et al.* 2003).

Hence, following the latest, (fourth) edition of the *International code of zoological nomenclature* (1999), we propose to conserve *Dendroplex* under the following terms:

## Genus *Dendroplex* Swainson, 1827

*Zool. J.*, 3, p. 354 (generic characters only).

Type species here fixed (under Art. 70.3 of the Code) as *Oriolus picus* J. F. Gmelin, 1788, misidentified, by subsequent monotypy (Art. 69.3 of the Code) as '*D. guttatus* Spix, 1824' = *Dendrocolaptes guttatus* Spix, 1824 (pl. 91, fig. 1) = *Xiphorhynchus ocellatus* (Spix, 1824) by Swainson, 1837, *Classification of birds*, 2, p. 314.

Thus, those taxa originally described or classified as *Dendroplex* according to Gray (1840), Sclater (1890), Hellmayr (1925), Zimmer (1934), and Todd (1948), but later transferred to *Xiphorhynchus* by Peters (1951), should be returned to *Dendroplex*, which currently contains just two distinct sister biological species: the polytypic *Dendroplex picus* (J. F. Gmelin, 1788) and the monotypic *Dendroplex kienerii* (Des Murs, 1856), as delineated by Marantz *et al.* (2003).

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## Reidentification of Ecuadorian specimens of *Pachyramphus rufus* as *P. castaneus*

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Cinereous Becard *Pachyramphus rufus* occurs from western Panama through northern Colombia, Venezuela, the Guianas and parts of Amazonian Brazil to north-east Peru (Mobley 2004). It has long been included in the avifauna of Ecuador (Chapman 1926, Ortiz-Crespo *et al.* 1990, Ridgely *et al.* 1998), based on two specimens—a female, the other unsexed—collected in south-east Ecuador at ‘Valle del Río Santiago’, prov. Morona-Santiago according to Paynter (1993), and ‘Valle del Zamora’, prov. Zamora-Chinchipec, in 1895, by Enrico Festa (Salvadori & Festa 1899) and held at the Museo Regionale di Scienze Naturali, Turin, Italy. Given the lack of subsequent records from Ecuador, several authors (Ridgely & Tudor 1994, Ridgely & Greenfield 2001, Mobley 2004) have questioned the identification of these specimens, and some (Ridgely & Greenfield 2001, P. Coopmans *in litt.* 2006) have suggested that they refer to Chestnut-crowned Becard *P. castaneus*, based on biogeography and that identification of female *Pachyramphus* was then poorly understood, as evidenced by Zimmer (1936). However, none of these authors examined the specimens and the legitimacy of the Ecuadorian records remained in doubt.

We recently independently examined the relevant specimens (catalogue nos. 1357–58; Elter 1986) and concluded that they are *P. castaneus saturatus*. Specific identification is straightforward, as both show a broad grey stripe behind the eye—including part of the ear-coverts—encircling the nape and separating the rich chestnut crown from the paler rufous lower nape and neck. The grey band is unbroken, but is much narrower on the nape than behind the eye. This grey band is diagnostic of *P. castaneus*, as no other species of *Pachyramphus*, in any plumage, shows it. Further distinctions from *P. rufus* include the richer chestnut crown, distinctly darker and more saturated than the rest of the upperparts (in *P. rufus* the crown is near-concolorous with the remaining upperparts), and a distinct dusky loreal stripe (this area is whitish or greyish white on *P. rufus*). Our re-examination of these specimens reveals that there are no valid records of *P. rufus* for Ecuador, and